WHAT IS CLAIMED IS:

1. An integrated high-beam/infrared-ray lamp system, comprising:

a high-beam bulb disposed within a lamp housing;

an infrared-ray filter disposed in the housing, the infrared-ray filter being allowed to rotate between a first position where the infrared-ray filter screens the high beam lamp and a second position where the infrared-ray filter does not screen the high beam lamp;

an actuating device for rotating the infrared-ray filter; and

a lamp control unit for controlling on/off operation of the high beam bulb and the actuating unit,

wherein the actuating device comprises an actuator for actuating the infrared-ray filter and an elastic member elastically connecting the infrared-ray filter and the housing.

2. The integrated high-beam/infrared-ray lamp assembly of claim 1, wherein the actuator is a solenoid actuator.

3. The integrated high-beam/infrared-ray lamp assembly of claim 1, wherein the elastic member is a coil spring.

4. The integrated high-beam/infrared-ray lamp assembly of claim 1, wherein the elastic member connects the lamp housing and the infrared-ray filter such that the infrared-ray filter locates at the second position when the actuator does not operate.

5. An integrated high-beam/infrared-ray lamp system, comprising:

a high beam bulb disposed within a lamp housing;

an infrared-ray filter connected to the housing, the infrared-ray filter being allowed to rotate between a first position where the infrared-ray filter screens the high beam bulb and a second position where the infrared-ray filter does not screen the high beam bulb;

an actuating device for actuating the infrared-ray filter; and

a lamp control unit for controlling on/off operation of the high beam bulb and

the infrared-ray filter,

wherein the lamp control unit comprises:

a high beam control circuit for generating a high beam bulb control signal to control the high beam bulb and an infrared-ray filter actuating device control signal to control the actuating device;

a switching device configured to perform on/off operation, the high beam control circuit being selectively connected to an external circuit that controls the high beam bulb in response to on/off operation of the switching device; and

a fault determination device determining a fault of the high beam control circuit and controlling the switching device to be on/off in response to a result of the fault determination of the high beam control circuit.

6. The integrated high-beam/infrared-ray lamp system of claim 5, wherein if the fault determination device determines the high beam control circuit to be faulty, the fault determination device controls the switching device to be off such that the high beam control circuit is separated from the external circuit.

7. The integrated high-beam/infrared-ray lamp system of claim 5, wherein the switching device is a relay switch.

8. The integrated high-beam/infrared-ray lamp system of claim 5, further comprising a night vision main switch configured to be operated by a user, wherein the switching device is operated to be on/off in response to on/off operation of the night vision main switch.